

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 October 2005 (13.10.2005)

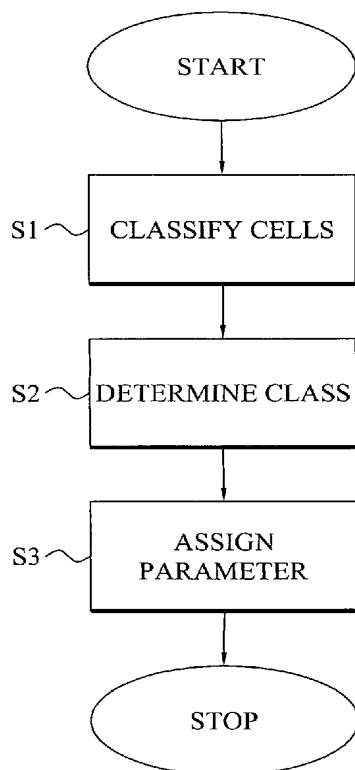
PCT

(10) International Publication Number  
**WO 2005/096657 A1**

- (51) International Patent Classification<sup>7</sup>: **H04Q 7/38** (74) Agent: AROS PATENT AB; P.O. Box 1544, S-751 45 Uppsala (SE).
- (21) International Application Number: PCT/SE2004/000490 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 30 March 2004 (30.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-164 83 Stockholm (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GUNNARSSON, Fredrik [SE/SE]; Valkebogatan 12, S-582 47 Linköping (SE). HAGERMAN, Bo [SE/SE]; Tjärhovsgatan 16, S-116 21 Stockholm (SE).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: METHODS OF AND APPARATUSES FOR CELL-DIFFERENTIATED HANDOVER IN A MOBILE COMMUNICATIONS SYSTEM



(57) Abstract: The present invention relates to handover procedures in a cellular communications system (1). The cells (10-70) of the system (1) are divided into multiple handover-related classes based on their respective radio coverage characteristics. Each such cell class is then associated with a unique handover parameter or a unique set of parameters that are used in handover procedures involving the cells (10-70). The parameter values are adapted for the radio coverage characteristics of each cell class in order to generate a suitable handover region size of the cells (10-70). The handover parameters are used together with user equipment-assisted signal quality measurements for triggering the handover procedures.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*